

Patent Abstracts of Japan

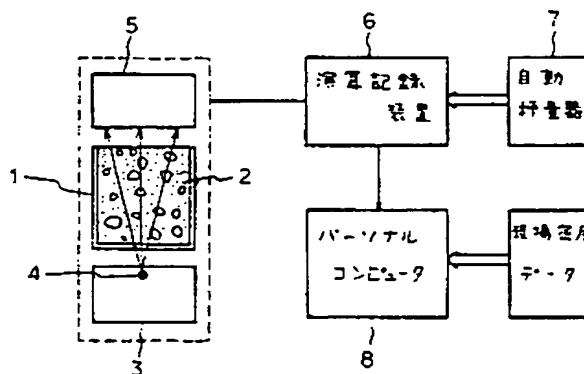
PUBLICATION NUMBER : 62289761
PUBLICATION DATE : 16-12-87

APPLICATION DATE : 09-06-86
APPLICATION NUMBER : 61134408

APPLICANT : SOIRU & LOCK ENG KK;
INVENTOR : NOBEYAMA MASAYUKI;

INT.CL. : G01N 33/24 G01N 9/24 G01N 23/06

TITLE : METHOD FOR DISCRIMINATING
COMPACTION OF GRANULAR
MATERIAL AND INSTRUMENT FOR
MEASURING MOISTURE RATIO/ DRY
DENSITY



ABSTRACT : PURPOSE: To easily measure the moisture content in a granular material by putting the compacted granular material into a container, radiating a low level neutron ray thereto and measuring the intensity of the fast neutron past the granular material.

CONSTITUTION: The compacted granular material 2 (soil) is put into the container 1 and the low level neutron ray 4 is radiated from the neutron ray source and the fast neutron past the granular material 2 enters a detector 5. Since the intensity of the fast neutron corresponds to the moisture contest contained in the granular material 2; therefore, the moisture in the container 1 and further the moisture ratio indicating the moisture per unit volume are calculated 6. On the other hand, the wet density of the material in the container 1 measured by, for example, a weighing machine 7 is inputted and the dry density is calculated 6 from the moisture ratio and the wet density. The data is plotted on a two-dimensional display screen and a compaction curve is obt'd. from the plot, by which the optimum moisture ratio and max. dry density are obt'd.

COPYRIGHT: (C)1987,JPO&Japio